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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,628	03/16/2000	Robert M. Fries	14531.55.1	5781
47973	7590	11/03/2005	EXAMINER	
WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111			MANNING, JOHN	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/526,628

Applicant(s)

FRIES ET AL.

Examiner

John Manning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-28, 40-45, 51, 53-67, 69-74 and 84-86 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 23-28, 40-45, 51, 53-67, 69-74 and 84-86 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 84-86 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 84-86 depend upon claim 1, which has been canceled. For the sake of examination, the Examiner assumes claims 84-86 to depend upon claim 23.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-26, 40-43, 51 and 84-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (6,486,925) in view of Forde (6,819,711).

Ko (6,486,925) teach a system and method for managing channels with digital and analog television signals. Users are allowed to select from channels that are provided from multiple sources and assembled into a single channel map.

With respect to claims 23, 40, and 51 the claimed method for tuning to a channel from among multiple broadcast types is taught by the tuning system seen in Figure 3

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receiving broadcast signals from multiple tuners 41, 51, and 61 and combining the signals using controller 30. The claimed computer readable medium for providing executable code is met by the controller 30, which inherently contains executable code to produce control signals and tables such as Table 1 seen in column 5. The claimed step of "storing a plurality of service records in a plurality of service spaces... each service record containing tuning information for tuning to a channel of one of the plurality of broadcast types" is taught in column 4, lines 61-67 and column 5, lines 1-6. The service records are taught in column 5, lines 36-41 to be categorized into a plurality of service spaces by grouping tuning information based on the broadcast type. Program information may be provided in a broadcast digital data stream "over one or more digital channels" via digital satellite broadcasting (col. 4:23-25) to obtain program association tables (PAT) (col.5:55+). Program association tables are used to extract tuning information which facilitates tuning the system. As seen in Fig. 5, Ko teaches a system designed to extract PAT or claimed "additional tuning information necessary for subsequent tuning to the one or more digital channels." This additional tuning information is stored "in one or more of the service records that correspond to the one or more digital channels over which the digital data stream were broadcast" as taught in col. 5: 10-35 and col.6: 1-16. With the tuning information built in memory a user may select a channel from a service space as grouped by broadcast type, claimed "receiving a selection of one of the service records in one of the service spaces" and the channel is then tuned to by controller 30 using the stored tuning information accessed from memory 20. This process is taught in column 2, lines 58-67 and column 3, lines 1-4, and

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is better understood with reference to Figure 6. Finally, the system automatically tunes to the selected channel using a corresponding tuner from the various tuners seen in Fig. 3 "without having to re-extract the additional tuning information that would otherwise be required to tune into the one or more digital data streams" by using the service record information stored in memory within a service space. This process is accomplished by using stored tuning information in memory for all channels (Fig. 6, step S2 1) to tune rapidly and not have to re-extract additional tuning information as taught throughout the specification, particularly in col. 2:58+ through col. 3:5 and col. 7: 13-40. It is inherent to Ko that the additional tuning information is correct when the channel is tuned to. Ko fails to explicitly disclose that when the extracted additional tuning information is incorrect or outdated, such that the tuning to the selected channel is unsuccessful, updating the extracted additional tuning information. Forde teaches when extracted additional tuning information is incorrect or outdated, such that the tuning to the selected channel is unsuccessful, updating the extracted additional tuning information so as to maintain a high quality communication channel (Col 3, Lines 40-57). It would have been obvious for one skilled in the art at the time of the invention to modify the data storing techniques taught by Ko with updating the extracted additional tuning information when the extracted additional tuning information is incorrect or outdated, such that the tuning to the selected channel is unsuccessful as taught by Forde.

With respect to claims 24 and 41, the claimed storing information that identifies a tuner is taught in column 6, lines 11- 17 by identifying broadcasting channels using ordered channel numbers within a table stored in memory 20. A network ID is also used

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to distinguish between the types of broadcast, which identifies one of tuners 41, 51, or 61 of Figure 3 for reception of the selected channel. Channel information including tuning frequency and channel number are also stored as noted above with each record, meeting the claimed "storing information that identifies a channel tunable by the tuner."

With respect to claims 25 and 42, the claimed accumulating a plurality of service records is met by obtaining a plurality of service records, using the process seen in Figure 4 to create a table in memory, seen in column 5.

With respect to claims 26 and 43, the claimed monitoring a broadcast to determine available channels is seen in Figure 4 with steps S12-15. Ko teaches monitoring the various broadcasts with tuners and creating a channel map as seen in column 5 and Figure 5. This channel map stores tuning information used to tune the various tuners to a channel selected by a viewer.

With respect to Claim 84, the combined teaching fails to explicitly disclose a time condition, that if is unsatisfied, causes the service record to point to another service record. Official Notice is taken that it is notoriously well known in the art to have a time condition, that if is unsatisfied, causes the service record to point to another service record so as to reserve a particular program for viewing or recording. It would have been obvious for one skilled in the art at the time of the invention to modify the combined teaching to have a time condition, that if is unsatisfied, causes the service record to point to another service record for the stated advantage.

With respect to Claim 85, the combined teaching fails to explicitly disclose pausing and subsequently resuming the display of a program. Official Notice is taken

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that it is notoriously well known in the art to pause and resume the displaying of a program so as to allow the user not to miss the broadcast program. It would have been obvious for one skilled in the art at the time of the invention to modify the combined teaching to pause and resume the displaying of a program for the stated advantage.

With respect to claim 86, the combined teaching fails to explicitly disclose receiving channel information of a single channel. Official Notice is taken that it is notoriously well known in the art to receive channel information of a single channel so as to efficiently receive channel information. It would have been obvious for one skilled in the art at the time of the invention to modify the combined teaching to receive channel information of a single channel for the stated advantage.

5. Claims 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (6,486,925) and in view of ISO/IEC 1-38 18.

With respect to claims 57-58, Ko does not explicitly teach use of a program map table or a program number, program identifier, and a bit stream type. On pages 95-100 (see particularly p. 97) of the ISO/IEC 13818-1 MPEG-2 Systems Standard the use of PAT and PMT tables containing information such as program numbers, program identifiers, and program bit stream type identifiers are clearly shown. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Ko by extracting the claimed additional tuning information and using PMT tables. One of ordinary skill in the art would be motivated to perform such a minor modification in order to fully comply with MPEG-2 standards and ensure system compliance.

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6. Claims 27-28, 44-45 and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (6,486,925) in view of DeFreese et al. (6,493,876).

With respect to claims 27 and 44, Ko does not explicitly teach the use of "a pointer associated with the service record in at least one of the service spaces." DeFreese et al. teach a system and method for full service cable television system, including the ability to receive broadcasts from a plurality of providers and create a master service record. As seen in Figure 5 of DeFreese, the claimed pointers are explicitly taught from a channel table to the service table. The service table is comprised of records that include further pointers to link information regarding their source for tuning. It would have been obvious for one skilled in the art at the time of the invention to modify the data storing techniques taught by Ko by using pointers as taught by DeFreese in order to provide a flexible architecture that is easily updated.

With respect to claim, 28 and 45, Ko teaches "categorizing the plurality of service records into a plurality of service spaces" as noted above by storing grouped records. However, Ko does not teach "creating a favorites service space for including pointers to service records that correspond to service records included in at least one other service space corresponding to a particularly broadcast type, and such that a viewer can select the channel from the favorites space." DeFreese teaches the use of a subscriber favorite line-up stored in memory in column 17, lines 62-63 and using pointers among channel groups as seen in Fig. 5. As seen in Figure 15, users may categorize channels into a variety of groups such as blocked or favorite channels. It would have been obvious for one skilled in the art at the time of the invention to modify the channel map

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storing techniques of Ko by allowing the creation of a favorite space as taught by DeFreese in order to allow the viewer quick access to their favorite shows.

With respect to claims 53-56, Ko does not explicitly teach selection of a channel or service space via a graphical user interface. However, it is appreciated that users may want to indicate a service type and that this has been supported in the prior art as taught by Ko in col. 2:23-35. While Ko teaches a way to modify such as system, it is appreciated that a user may Page 8 desire to channel surf through all channels without selecting a broadcast type, or a user may desire to particularly indicate a group of channels such as when a user desires to watch a movie in high quality digital broadcast. DeFreese teaches use of a graphical user interface as seen in Fig. 15 for users to select among grouped channels. It would have been obvious for one skilled in the art at the time of the invention to modify the service space selection by using a graphical user interface as taught by DeFreese in order to allow the viewers to directly indicate their preference of channel groupings.

7. Claim 59-65 and 70-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (6,486,925) in view of Wugofski (6,003,041).

With respect to the claimed method of claims 59 and 71, Ko discloses service record corresponding to different broadcast types as detailed by Figure 5, Item 20 (See Col 6, Lines 35-45). The remaining recited limitations of claims 59 and 71 are taught by that discussed above for claim 23, 40 and 51, except Ko does not explicitly teach displaying the service spaces and corresponding information. Wugofski teaches the presentation of listing or combinations of listing to a user so as to ensure that the

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selections are carried out correctly (Col 2, Lines 24-26). It would have been obvious for one skilled in the art at the time of the invention to modify the system of Ko by displaying the presentation of listing or combinations of listing to a user for the stated advantage.

With respect to claims 60 and 72, the claimed storing information that identifies a tuner is taught in column 6, lines 11- 17 by identifying broadcasting channels using ordered channel numbers within a table stored in memory 20. A network ID is also used to distinguish between the types of broadcast, which identifies one of tuners 41, 51, or 61 of Figure 3 for reception of the selected channel. Channel information including tuning frequency and channel number are also stored as noted above with each record, meeting the claimed "storing information that identifies a channel tunable by the tuner."

With respect to claims 61 and 73, the claimed accumulating a plurality of service records is met by obtaining a plurality of service records, using the process seen in Figure 4 to create a table in memory, seen in column 5.

With respect to claim 62, the claimed monitoring a broadcast to determine available channels is seen in Figure 4 with steps S12-15. Ko teaches monitoring the various broadcasts with tuners and creating a channel map as seen in column 5 and Figure 5. This channel map stores tuning information used to tune the various tuners to a channel selected by a viewer.

With respect to claim 63, the claimed step of "for each of the available channels, an act of creating a service record for the available channel if a service record does not already exist for the available channel" is met by Figure 7 of Wugofski. "Step 716 may

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then read a number of characteristics from the device itself, such as whether it is capable of tuning multiple channels. Step 717 then builds a new record containing the information in columns 520, FIG. 5. Step 718 adds the record to device database 350, and passes control to exit 702" (Col 6, Lines 27-32).

In regard to claim 64, the claimed step of "an act of including information that the tuner used to tune to the available channel in the service record" is met by Figure 6, Item 622 of Wugofski.

In regard to claim 65, Wugofski teaches using main unit 151 to monitor channels, create service records, and include tuning parameters used to tune to a new channel. The claimed "loader" is met by the main unit 151, which as seen in Figure 1 stores tuning information into memory from various broadcasts and is provided for each tuner as claimed. The claimed "master service control" is also met by the main unit 151, which works with audio/video multiplexer 130 of Figure 1 to create new service records for channels as claimed.

In regard to claim 70, the claimed step of "an act of the tuning system tuning to a selected digital channel corresponding to the selected service record using the tuning information provided in the service record" is met by Figures 3 and 6 of Wugofski. As stated above channel-mapping services module 360 builds, maintains, and reads a channel-map database 370 for module 310, where module 310 controls multiplexer 130 to select among input devices 120 for presentation on output devices 140.

Claim 74 is met by that discussed for claims 62-64.

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8. Claims 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko in view of Wugofski and further in view of DeFreese et al. (6,493,876).

In regard to claim 66 and 67, the combined teaching does not explicitly disclose the use of "a pointer associated with the service record in at least one of the service spaces" or "creating a master service space that includes pointers to all of the plurality of service records". DeFreese teaches a system and method for full service cable television system, including the ability to receive broadcasts from a plurality of providers and create a master service record. As seen in Figure 5 of DeFreese, the claimed pointers are explicitly taught from a channel table to the service table. The service table is comprised of records that include further pointers to link information regarding their source for tuning. It would have been obvious for one skilled in the art at the time of the invention to modify the data storing techniques taught by the combined teaching by using pointers as taught by DeFreese in order to provide a flexible architecture that is easily updated.

In regard to claim 69, the combined teaching discloses "categorizing the plurality of service records into a plurality of service spaces" as noted above. However, the combined teaching does not teach "an act of creating a favorites service space for including service records that correspond to desirable channels" DeFreese teaches the use of a subscriber favorite line-up stored in memory in column 17, lines 62-63 and using pointers among channel groups as seen in Fig. 5. As seen in Figure 15, users may categorize channels into a variety of groups such as blocked or favorite channels. It would have been obvious for one skilled in the art at the time of the invention to modify

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the channel map storing techniques of the combined teaching by allowing the creation of a favorite space as taught by DeFreese in order to allow the viewer quick access to their favorite shows.

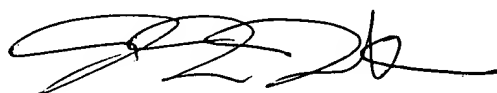
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM
October 29, 2005



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